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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,664	01/13/2004	M. David Weingarten	ATH 225	4456
20786	7590	08/31/2006	EXAMINER	
KING & SPALDING LLP 1180 PEACHTREE STREET ATLANTA, GA 30309			ZUCKER, PAUL A	
			ART UNIT	PAPER NUMBER
			1621	

DATE MAILED: 08/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/757,664

Applicant(s)

WEINGARTEN ET AL.

Examiner

Paul A. Zucker

Art Unit

1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 17-26, 28-37, and 44-55 is/are rejected.
- 7) ☒ Claim(s) 16, 27 and 38-43 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/19/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 17, 28, 37 and 44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 17, 28, 37 and 44 recite the limitation "acetic anhydride substituted by a protected or unprotected amino", respectively. It is unclear how acetic anhydride could be substituted by an unprotected amino since it would react with the anhydride portion of the molecule. Claims 17, 28, 37 and 44 are therefore rendered indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. Claims 1-15, 17-26, 28-37, and 45 –55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Medford et al (WO 98/51662 11-1998) in view of et al (US 6,680381-B2 10-2004) and Aldrich (Aldrich Chemical Catalog, 2002, Milwaukee, WI, pages 187, 1104, 1454 and 1597).

Instantly claimed are processes for manufacturing compounds of Formulas I, III, V, VI, VIII, IX, X, XI or XII which proceed through the mono O-alkylation or O-acylation of the (presumably mono-) deprotonated probucuo1 wherein the deprotonated probucuo1 is formed by reaction of probucuo1 with a Grignard or alkyl lithium reagent.

Medford teaches (Page 27, line 4-page 29, line 7) a large number of mono- O-alkylated and O-acylated probucuo1 derivatives. Medford teaches (Pages 27, lines 5, 7, 20-24 and page 28, lines 3, 6, 8) compounds of the instantly produced formulas. Medford further teaches (Page 40, lines 5-26 and page 40, line 70-page 41, line 10, respectively) methods for the mono O-alkylation and O-acylation of probucuo1 via formation of the sodium phenolate by treatment with sodium hydride.

The difference between the instantly claimed processes and that taught by Medford is that Medford does not appear to contemplate the use of Grignard reagents or alkyl lithium reagents as bases instead of sodium hydride.

Chidambaram, however, teaches (Column 13, lines 42-56) a method for the deprotonation of phenols (in preparation for their use in a nucleophilic substitution reaction) by treatment with base. Chidambaram teaches (*ibid*) for the purpose of deprotonating phenols that alkali metal hydrides, alkyllithiums and Grignard reagents are equivalent.

Thus one of ordinary skill in the art would have been motivated to replace the method of formation of the phenolate salt of Medford with that of Chidambaram in order to produce a more reproducible process since it is difficult to determine the actual activity of a batch of sodium hydride from use to use when compared to other basic reagents such as alkyllithiums and Grignard reagents. There would have been a reasonable expectation for success based upon Chidambaram's teaching of equivalence of the bases.

The difference between the process taught by Medford and Chidambaram and that instantly claimed is that Chidambaram does not teach specific examples of Grignard reagents to employ for the purpose of deprotonating probucol.

Adrich, however, teaches (Pages 187, entries 1 and 2; 1104, entries 7-12; 1454, entries 12- 16 and 1597, entry 16, respectively) the Grignard (and lithium) reagents

benzylmagnesium chloride, isopropyl lithium and magnesium chloride, phenyllithium, magnesium bromide and magnesium chloride, and propylmagnesium chloride.

Thus one of ordinary skill in the art would have been motivated to select a Grignard reagent or lithium reagent as taught by Aldrich in order to perform the process as taught by Medford and Chidambaram. There would have been a reasonable expectation for success since Medford and Chidambaram teach the suitability of the types of reagents taught by Aldrich for their process.

Thus the instantly claimed process would have been obvious to one of ordinary skill in the art.

Claim Objections

4. Claims 16, 27 and 38-44 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Allowable Subject Matter

5. Claims 16, 27 and 38-44 are drawn to allowable subject matter. The following is a statement of reasons for the indication of allowable subject matter: The closest prior art, Medford et al (WO 98/51662 11-1998), Chidambaram et al (US 6,680,381-B2 10-2004) and Aldrich (Aldrich Chemical Catalog, 2002, pages 187, 1104, 1454-1455 and 1597), either alone or in combination, neither discloses nor fairly suggests a process for making the compound of Formula VII or a process comprising using a

dialkylmagnesium reagent as base. The instantly claimed processes are therefore patentable over the teachings of Medford, Chidambaram and Aldrich.


Conclusion

6. Claims 1-54 are pending. Claims 1-54 are pending. Claims 1-15, 17-26, 28-37, and 44 –55 are rejected. Claims 16, 27 and 38-43 are objected to.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. Zucker whose telephone number is 571-272-0650. The examiner can normally be reached on Monday-Friday 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


PAULA A. ZUCKER, PH.D.
PRIMARY EXAMINER
